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# **Resource accounts for the Norwegian continental shelf as per 31 December 2022**

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Organisational unit	Team
Technology, Analyses and Coexistence	Resource Accounts and Forecasts, Data and Statistics, Exploration Studies
Management Involvement	
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## 1 Resource Accounts for the Norwegian continental shelf 2022

### Primary trends:

- Minor reduction in total resources
- Good growth in gross reserves
  - This year, there is an increase in gross reserves (reserves before deducting total production) of 262 million Sm<sup>3</sup> oe compared with the accounts for 2021. The increase can generally be explained by the investment decisions made and multiple plans for development and operation (PDOs) submitted in 2022.

### 1.1 Oil and gas resources on the Norwegian continental shelf

Oil and gas resources are discovered, and discoveries are developed as fields if they are economically and technologically viable, and the oil and gas is produced and sold. This results in dynamic resource accounts that change from year to year.

In the [Resource Accounts as per 31 December 2022 \(Excel\)](#), the estimates for the overall resource volumes (including what has been sold and delivered) on the Norwegian shelf are

- 8,247 million Sm<sup>3</sup> oil
- 6,606 billion Sm<sup>3</sup> gas
- A total of 15,767 million Sm<sup>3</sup> oe
- This is a reduction of 97 million Sm<sup>3</sup> oe compared with 2021

The total estimates for oil, liquids (sum of oil, condensate and NGL), gas and oil equivalent are shown in Table 1-1 along with changes from the Resource Accounts in 2021. Discovered resources have been reduced by 72 million Sm<sup>3</sup> oe compared with last year's Accounts. Remaining discovered resources have been reduced by 303 million Sm<sup>3</sup> oe, including last year's total production of 231 million Sm<sup>3</sup> oe. The reduction amounts to ten per cent for oil and six per cent for gas.

The volumes are listed in oil equivalent (1,000 Sm<sup>3</sup> gas = 1 Sm<sup>3</sup> oe).

*Table 1-1 Expected values for petroleum resources as per 31 December 2022 with changes from 2021. (Liquids are oil, condensate and NGL).*

Product	Oil million scm		Sum liquids million scm		Gas billion scm		Sum oil eq. million scm	
	Total	Change	Total	Change	Total	Change	Total	Change
Produced	4 727	96	5 325	107	2 922	124	8 247	231
Reserves	1 051	6	1 215	11	1 469	20	2 684	31
Contingent resources in fields	311	-66	341	-82	260	-57	600	-139
Contingent resources in discoveries	227	-94	241	-118	230	-77	471	-196
<b>Total discovered resources</b>	<b>6 317</b>	<b>-58</b>	<b>7 121</b>	<b>-82</b>	<b>4 881</b>	<b>10</b>	<b>12 002</b>	<b>-72</b>
<b>Remaining discovered resources</b>	<b>1 590</b>	<b>-154</b>	<b>1 796</b>	<b>-189</b>	<b>1 959</b>	<b>-114</b>	<b>3 755</b>	<b>-303</b>
Undiscovered resources (open areas)	935	0	1 020	-5	1 090	-10	2 110	-15
<b>Total open areas</b>	<b>7 252</b>	<b>-58</b>	<b>8 141</b>	<b>-87</b>	<b>5 971</b>	<b>0</b>	<b>14 112</b>	<b>-87</b>
Undiscovered resources (unopened areas)	995	-5	1 020	-10	635	0	1 655	-10
<b>Total</b>	<b>8 247</b>	<b>-63</b>	<b>9 161</b>	<b>-97</b>	<b>6 606</b>	<b>0</b>	<b>15 767</b>	<b>-97</b>

The table divides the petroleum resources into resource categories, reserves, contingent resources and undiscovered resources. The categories are explained in the report's appendices. Opened areas are areas opened for petroleum activities.

The illustration below shows the change in overall resources for 2022. Contingent resources (no decision to develop) in fields and discoveries have been reduced by 139 million Sm<sup>3</sup> oe and 196 million Sm<sup>3</sup> oe, respectively. The reduction for contingent resources in discoveries was primarily caused by maturing resources into reserves, which means that an investment decision has been made for the discoveries. Investment decisions for projects are also the primary cause of the reduction in contingent resources in fields, in addition to a few revised projections for individual projects. Undiscovered resources have been reduced by 25 million Sm<sup>3</sup> oe, and this was primarily due to the exploration activity. The overall resource volume has been reduced by 97 million Sm<sup>3</sup> oe.

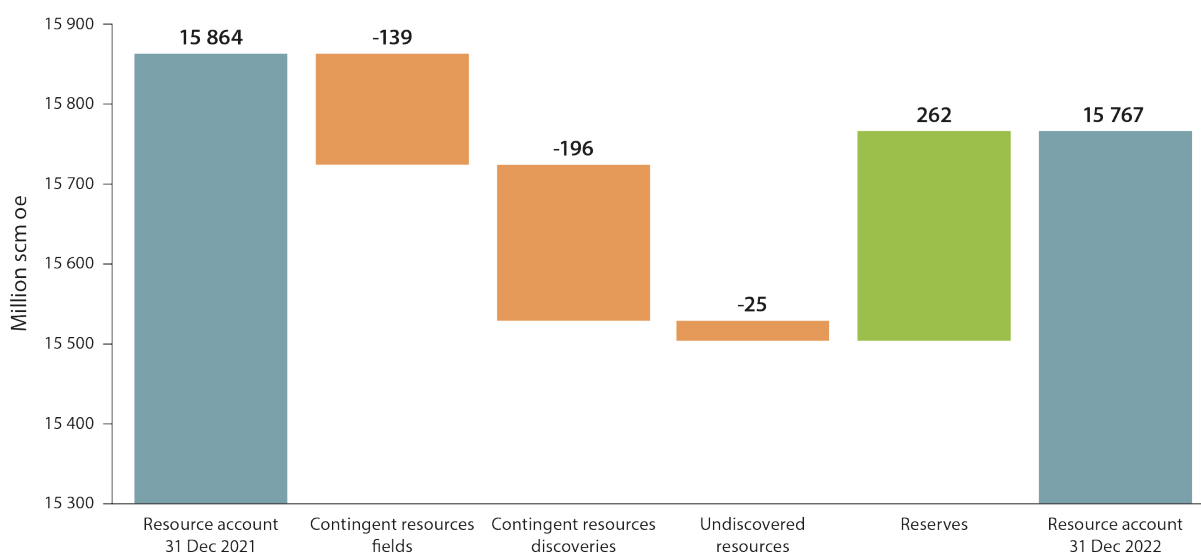


Figure 1-1 Changes in overall resources for 2022, distributed across main categories in the Resource Accounts

The Norwegian Petroleum Directorate estimates the volume of undiscovered resources both in acreage opened for petroleum activities, as well as in unopened acreage. These estimates contain the volumes of petroleum that we estimate could be extracted from deposits that have yet to be proven through drilling.

The distribution of remaining resource volumes into resource categories along with the volume sold and delivered as per 31 December 2022 is shown in Figure 1-2. The middle of the columns shows the expected recoverable petroleum. Uncertainty in the overall estimates is illustrated with a low estimate on the left and a high estimate on the right in each column.

The pie chart on the right of the figure shows that 52 per cent of the expected recoverable resources on the shelf have been produced, and that 24 per cent of the overall resources have yet to be discovered. Just like last year, 17 per cent of the overall resources are reserves. In 2022, the authorities approved eight plans for development and operation (PDOs), and five PDO exemptions.

The companies submitted 18 plans for authority approval and six applications for PDO exemptions which are not approved at year-end.

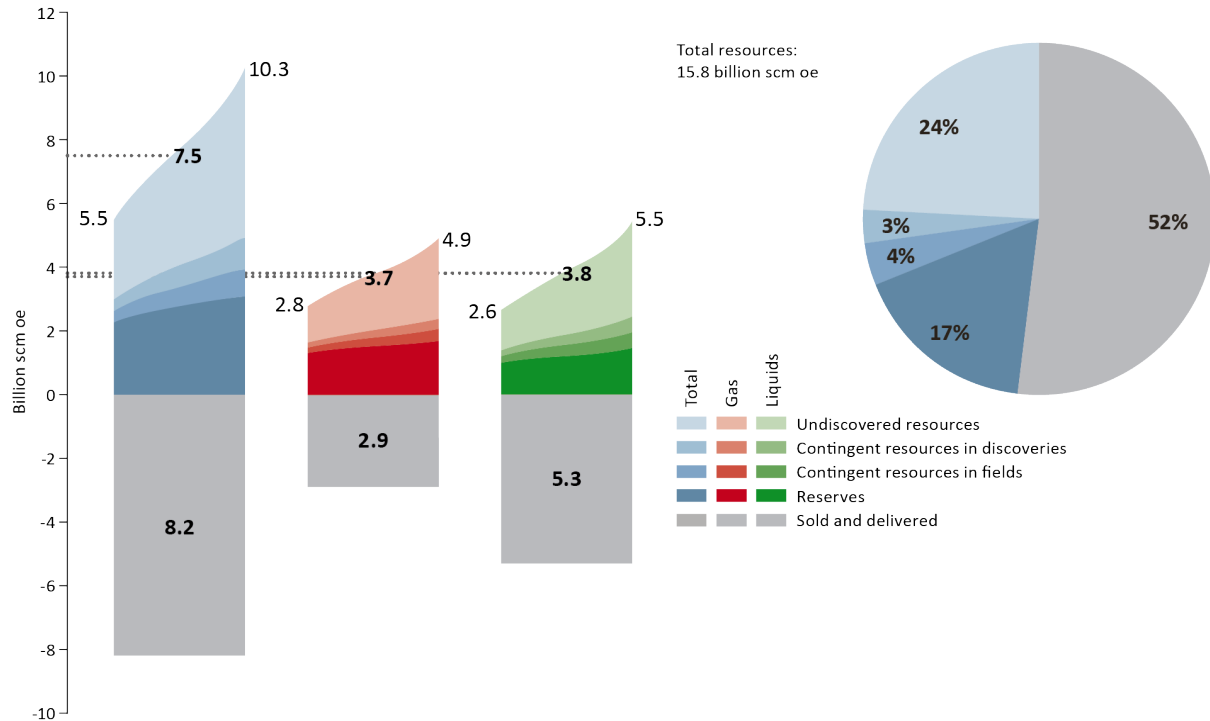


Figure 1-2 Petroleum resources and uncertainty in the estimates as per 31 December 2022

### 1.1.1 Resource development

Resource estimates change over time. New information and knowledge change the expected value and uncertainty associated with the overall resources. As resources are mapped, proven, matured and finally produced, their status changes. Figure 1-3 below shows the changes in the estimates for liquids and gas over the last ten years.

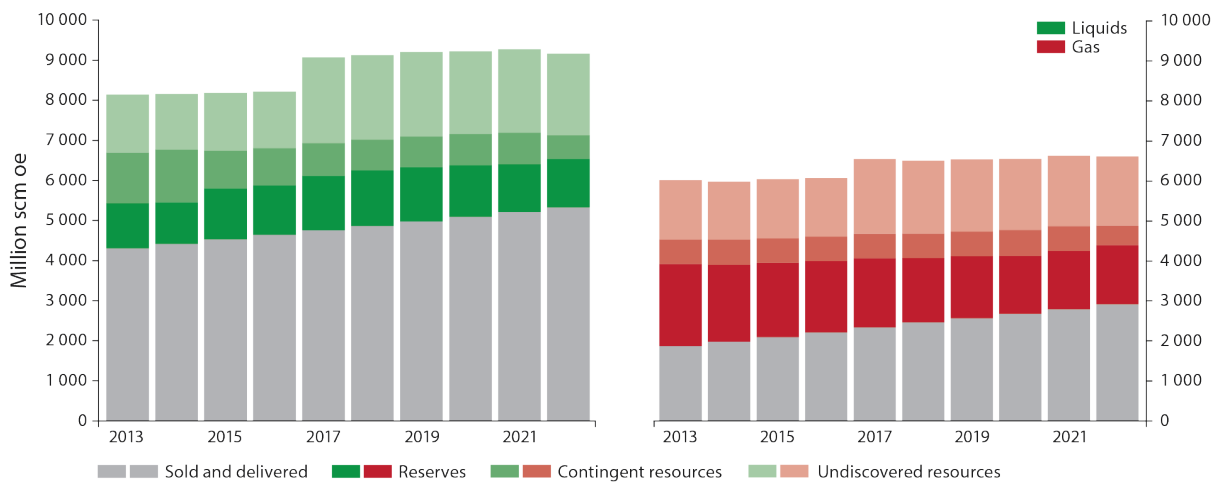


Figure 1-3 Development in expected value for liquids and gas resources over the last ten years. Liquids on the left and gas on the right.

There has been a steady increase over time in discovered resources for liquids and gas. Discovered liquids resources show a minor reduction from 2021 to 2022, and the most important reason for this is revised estimates for individual projects. The resource estimate for undiscovered resources increased in 2017 due to the inclusion of resources in the Barents Sea North.

## 1.2 Oil and gas resources in Norwegian sea areas

The three sea areas - the North Sea, Norwegian Sea and Barents Sea - are different both as regards geology, resource base, maturity and scope of infrastructure and knowledge. An overview of resources in the three areas can be found in the [Resource Accounts as per 31 December 2022](#) (Excel) link.

There has been petroleum activity in the North Sea since 1965. The Norwegian Sea and Barents Sea (areas north of the 62<sup>nd</sup> parallel) were opened for petroleum activities in 1980. The remaining resources and the distribution between discovered and undiscovered resources in opened and unopened areas, respectively, therefore differ between the three areas. The expected estimates can be found in Figure 14, which shows the distribution for liquids and gas, respectively. The uncertainty in the volume estimates declines as the areas mature.

In the North Sea, the majority of oil and gas is defined as reserves, which means that they have approved plans for recovery. Of the remaining resources in the North Sea, 64 per cent are classified as reserves, of which 49 per cent is liquids and 51 per cent is gas. Reserves accounted for 60 per cent of the remaining resources in the North Sea last year.

In the Norwegian Sea, reserves account for 35 per cent of the remaining resources, which are distributed between 32 per cent liquids and 68 per cent gas. The undiscovered resources make up the largest share of the remaining resources with 51 per cent.

The majority, 84 per cent of oil and gas resources in the Barents Sea, are classified as undiscovered. Vast areas in the Barents Sea have yet to be opened for petroleum activity, and this is where we find the greatest expected value for undiscovered resources.

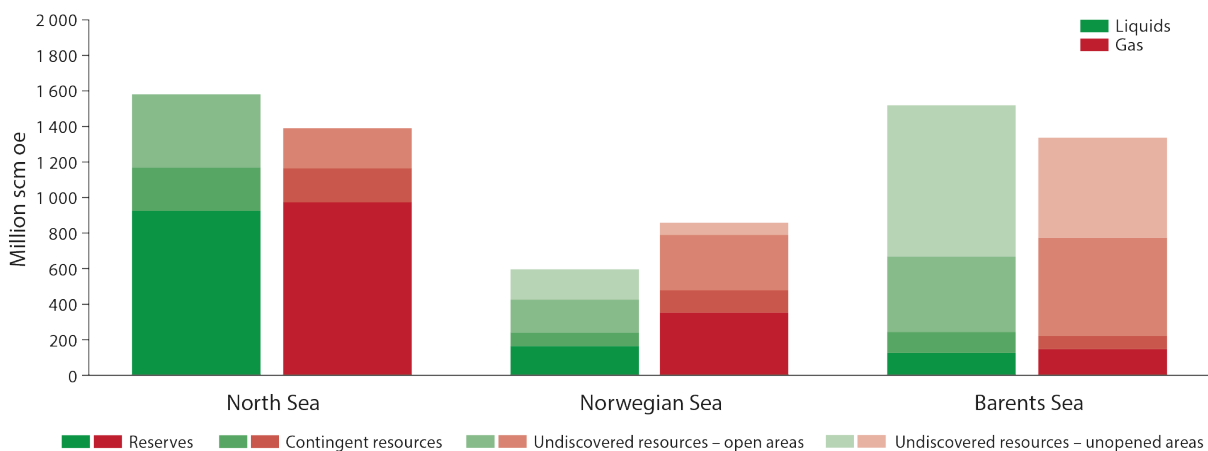


Figure 1-4 Distribution of remaining liquids and gas resources (expected values) distributed by sea area and resource category. Liquids resources are shown in green and gas resources in red.

## 2 Discovered resources

### 2.1 Fields

The [NPD's resource classification system](#) defines oil and gas resources as reserves once the operator has submitted a plan for development and operation (PDO) or decided to implement a measure to optimise recovery that does not require a PDO. Discoveries are classified as fields once an approved development plan is available. 93 fields were in production at year-end.

The fields that have produced the most oil and gas in 2022 are shown in the figures below:

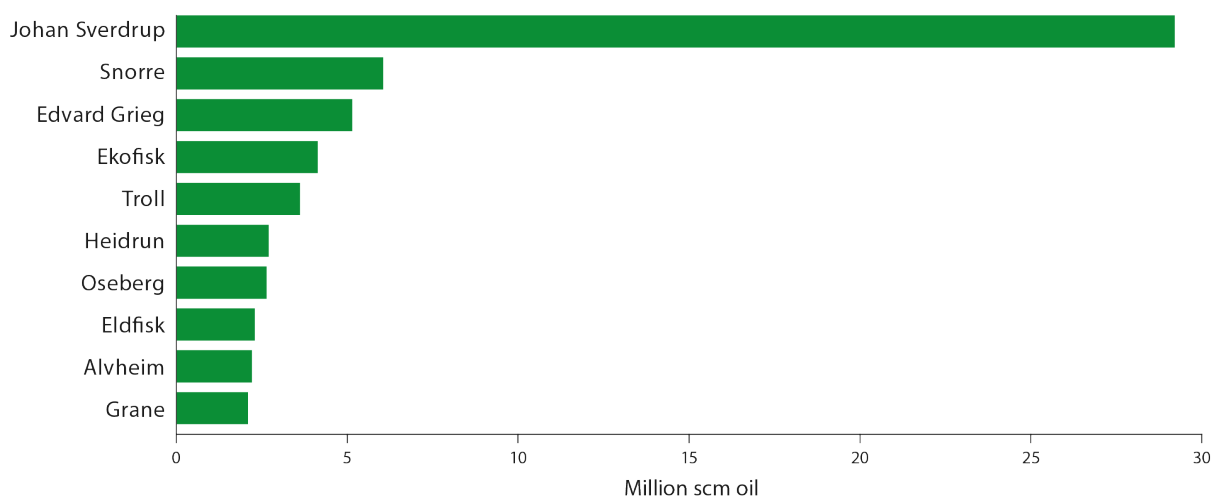


Figure 2-1 The ten largest fields in 2022 measured by oil production

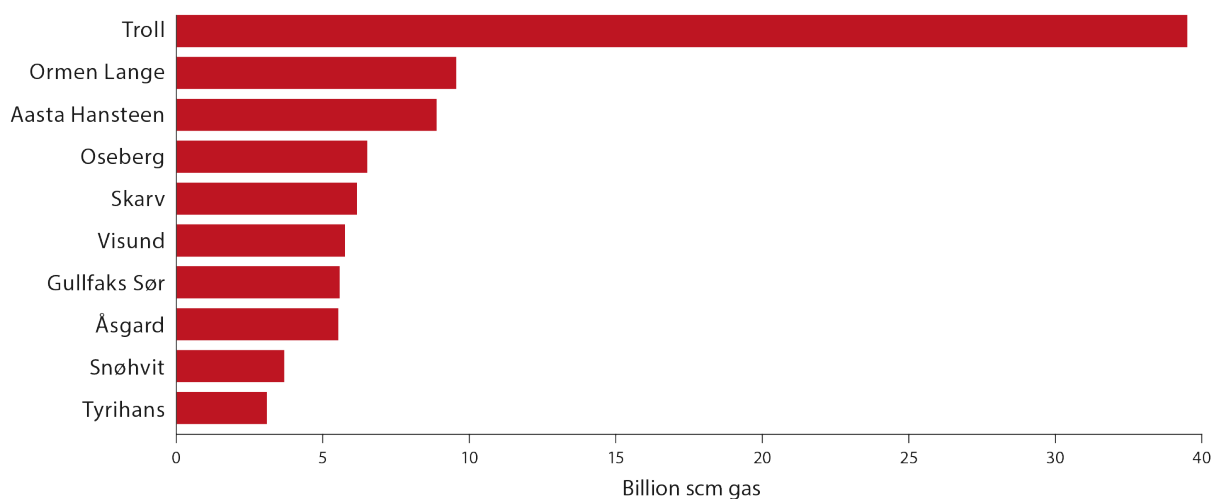


Figure 2-2 The ten largest fields in 2022 measured by gas production



### 2.1.1 Reserves

Remaining reserves amount to 1,051 million Sm<sup>3</sup> of oil and 1,469 billion Sm<sup>3</sup> of gas. The increase in overall remaining reserves from 2021 is 31 million Sm<sup>3</sup> oe; see Table 1-1. The Troll and Johan Sverdrup fields have the largest remaining reserves on the Norwegian shelf, with 645 billion Sm<sup>3</sup> of gas and 315 million Sm<sup>3</sup> of oil, respectively. For information on additional fields, please see the Resource Accounts.

This year's resource accounts reflect good growth in gross reserves, which means reserves before deducting total production. Gross reserve growth for oil is 103 million Sm<sup>3</sup> and 144 billion Sm<sup>3</sup> for gas. A total of 231 million Sm<sup>3</sup> oe was produced in 2022.

The authorities approved eight plans for development and operation (PDOs), and five PDO exemptions. The companies submitted 18 PDOs and six applications for PDO exemptions, 22 of which are still being processed. Estimates of reserves and production for each field can be found in [the Resource Accounts as per 31 December 2022 \(Excel\)](#).

In 2014, the Norwegian Petroleum Directorate established a goal for oil reserve growth of 1,200 million Sm<sup>3</sup> for the 2014-2023 period. This was done in an effort to ensure necessary focus on reserve growth, and to simultaneously follow up the development in a systematic manner.

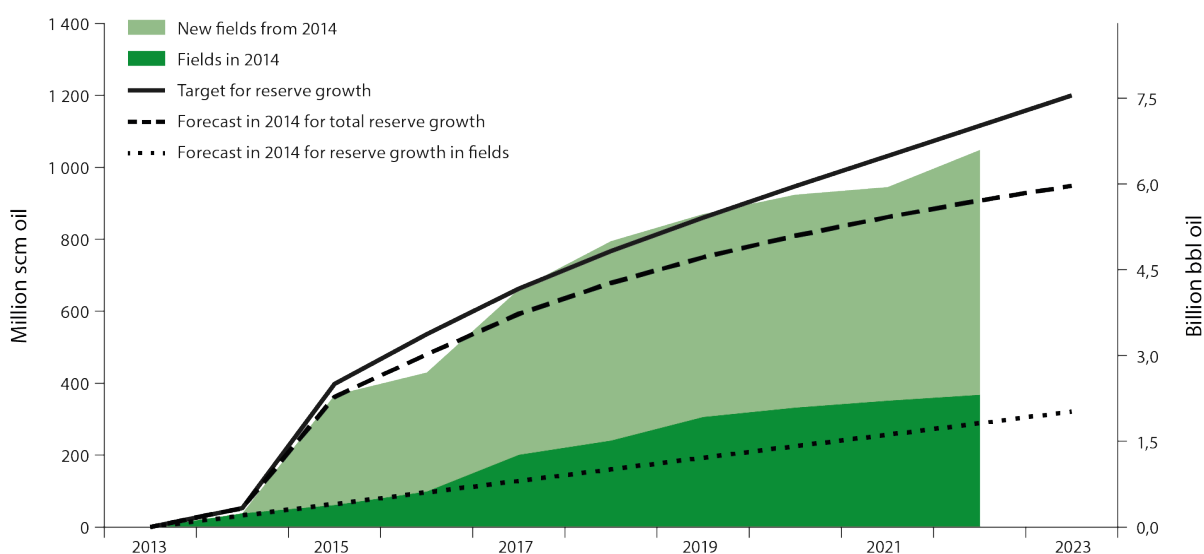


Figure 2-3 Growth in oil reserves from 2014 to 2022 compared with the NPD's forecast and goal from 2014. The growth is distributed between reserves from fields and from new discoveries that have come on stream.

The reserve growth for oil from 2013 to today is shown in Figure 2-3. The fields approved for development or in production on the Norwegian shelf in 2014 have seen good reserve growth. By the end of 2021, they have already matured more than the forecast for 2023. As expected, the greatest contribution comes from new field developments adopted during the period. The majority of the contribution was included in the forecast, and the status at year-end shows that the discoveries made before the goal was set have resulted in an increase that exceeds the forecast. Overall, the reserve growth, after nine years, amounts to approx. 1,050 million Sm<sup>3</sup>.

Not many new plans for development and operation are expected in 2023, but continuous efforts will be made to increase reserves in fields. In order to reach the goal from 2014, extraordinary reserve growth will be needed on the fields included in the basis for the 2014 goal.

The figures below show the changes in reserves, including produced volumes during the 2013-2023 period. The production is replaced by reserve growth in the years where the columns exceed production, shown by the dotted lines. The last ten-year period has seen an increase in liquids reserves, while there has been a reduction for gas; see Figure 2.

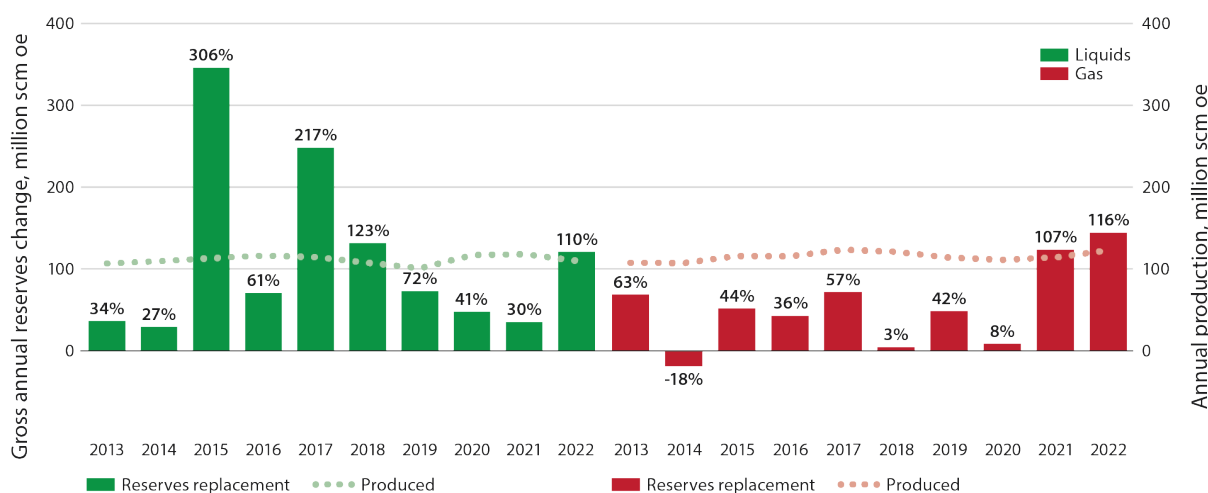


Figure 2-4 Reserves replacement- and production development for liquids and gas over the last ten-year period. The percentage shows annual reserve replacement

1,112 million Sm<sup>3</sup> of liquids has been produced over the last ten years, and the Resource Accounts show that the remaining reserves are 26 million Sm<sup>3</sup> higher than in 2012. This means that the reserve replacement for liquids has exceeded 100 per cent over the last 10 years. 110 per cent of produced liquids reserves were replaced in 2022.

Gas production since 2012 totals 1,164 billion Sm<sup>3</sup>, and the Accounts show that the remaining reserves are 621 billion Sm<sup>3</sup> lower than in 2012. This yields a reserve replacement for gas of just under 50 per cent over the last 10 years, while 116 per cent of the produced gas reserves were replaced in 2022.

### 2.1.2 Contingent resources in fields

The expected value for contingent oil resources (no decision to develop) in fields is 311 million Sm<sup>3</sup>; see Table 1-1. This is a reduction of 66 million Sm<sup>3</sup> from 2021. For gas, the expectation is 260 billion Sm<sup>3</sup>, and this is a reduction of 57 billion Sm<sup>3</sup> from the previous year. The reductions are primarily caused by maturing resources into reserves, but they are also caused by revised projections for individual projects.

The Resource Accounts for 2022 include 140 specific, but not yet adopted, projects for improved oil and/or gas production and extended lifetime. Implementation of new technology is important in order to realise these projects and establish new ones.

Figure 2-5 shows these projects distributed by project type with associated resources distributed between liquids and gas.

Projects to improve recovery are dominated by new wells, both in the number of projects (65) and volume (approx. 110 million Sm<sup>3</sup> oe). Other projects that could provide substantial contributions are further developments, low pressure- and late-life production. Fewer measures have been identified which utilise new injection or advanced methods.

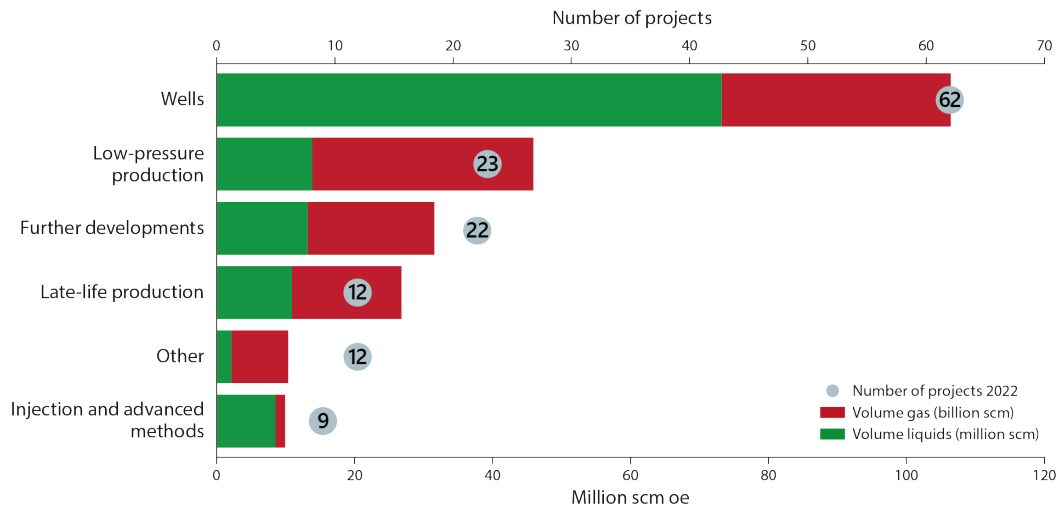


Figure 2-5 Specific projects for improved recovery from fields; number of projects and resources

## 2.2 Discoveries

12 discoveries were made in 2022 with a total resource estimate of 52 million Sm<sup>3</sup> oe. Four of the discoveries were made in the North Sea, five in the Norwegian Sea and three in the Barents Sea.

On 1 January 2022, the discovery portfolio consisted of 88 discoveries. On 31 December 2022, the discovery portfolio consisted of 79 discoveries. This can be explained by the fact that PDOs were submitted for 18 discoveries, and that resources have matured into reserves. In 2022, six discoveries changed their status from unlikely and are now being considered for development, while nine discoveries are considered to be unlikely for development.

Figure 2-6 shows an overview of developments in the number of discoveries in the portfolio through 2022, and Figure 2-7 shows equivalent info for the resource estimates.

## Resource Accounts as per 31 December 2022

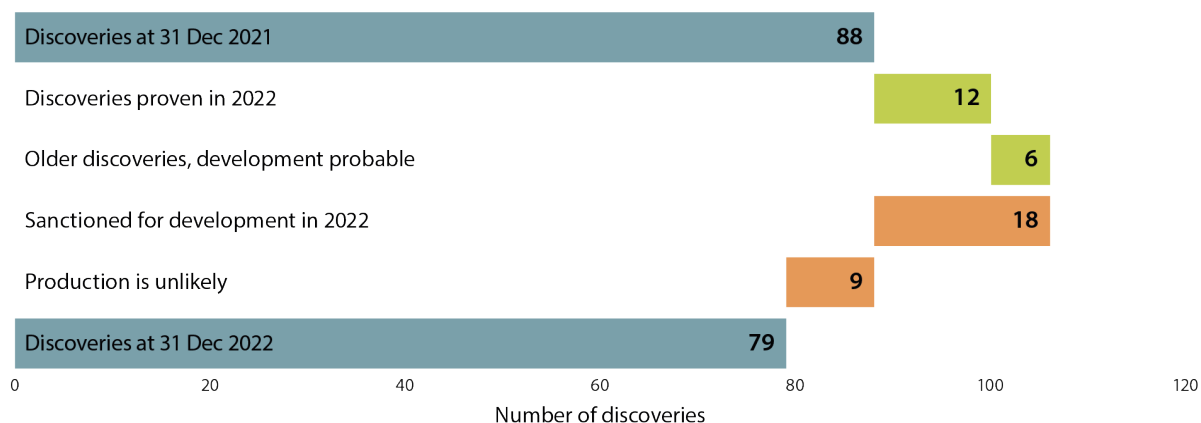


Figure 2-6 Overview of development in discovery portfolio through 2022. Categories in green show contributions to growth and categories in red show contributions to a reduction in the number of discoveries.

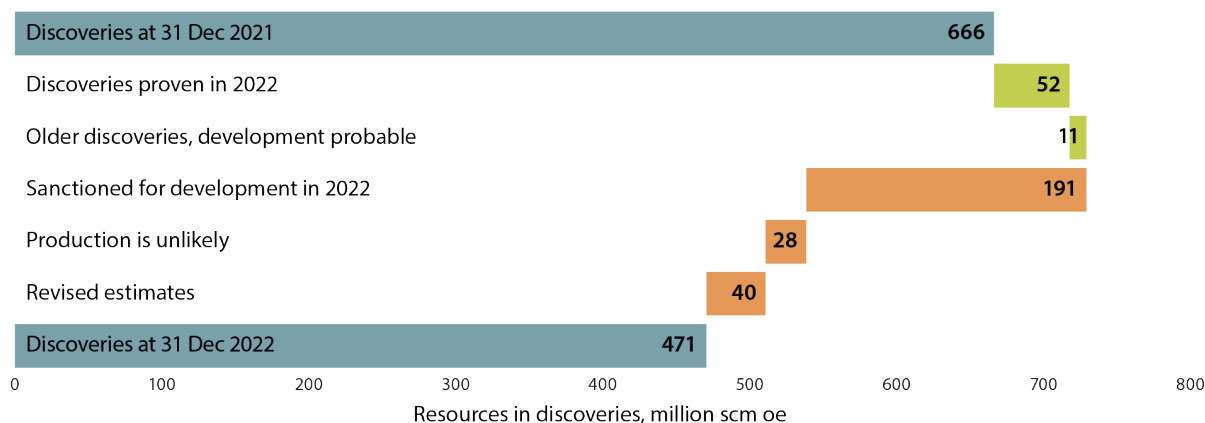


Figure 2-7 Overview of resource development in the discovery portfolio through 2022; categories in green show contributions to growth and categories in red show contributions to a reduction in resources awaiting a development decision

In 2022, development plans were submitted for 20 per cent of the discoveries in the portfolio at year-end 2021. These plans covered 29 per cent of the resources in the discovery portfolio. Assessments of whether discoveries will be profitable to develop will vary over time. Studies and measures could cause this status to change.

In addition to changes associated with new discoveries and new categorisation, the updates also cover projections of what can be recovered from the various discoveries. Work is under way on new studies of the subsurface, changes in concept for development solutions and conditions on the host installations.

Of the 88 discoveries in the Accounts as per 31 December 2021, 61 are also included in the 2022 Accounts. The projection for recoverable resources for these discoveries has been reduced by 40 million Sm<sup>3</sup> oe.

### 2.2.1 Contingent resources in discoveries

There is a total of 227 million Sm<sup>3</sup> of oil and 230 billion Sm<sup>3</sup> of gas in discoveries yet to be developed; see Table 1-1. The total volume in discoveries has been reduced by 196 million Sm<sup>3</sup> of oe compared with last year's Accounts. This reduction was mainly caused by resources maturing into reserves for several discoveries, in addition to a reduction in expected recoverable volumes in certain discoveries, such as 7324/8-1 (Wisting), 6507/5-10 S (Slagugle) and 35/12-2 (Grosbeak).

### 2.2.2 Many small and a few larger developments

Figure 2-8 shows the discovery portfolio in the Resource Accounts by sea area and size. There are certain larger discoveries and many minor ones in all areas. The North Sea has the most discoveries. The largest discovery is 7324/8-1 (Wisting), which is located in the Barents Sea. In the Norwegian Sea, 6406/9-1 (Linnorm) is the largest, while the gas discovery 35/2-1 (Peon) is the largest in the North Sea.

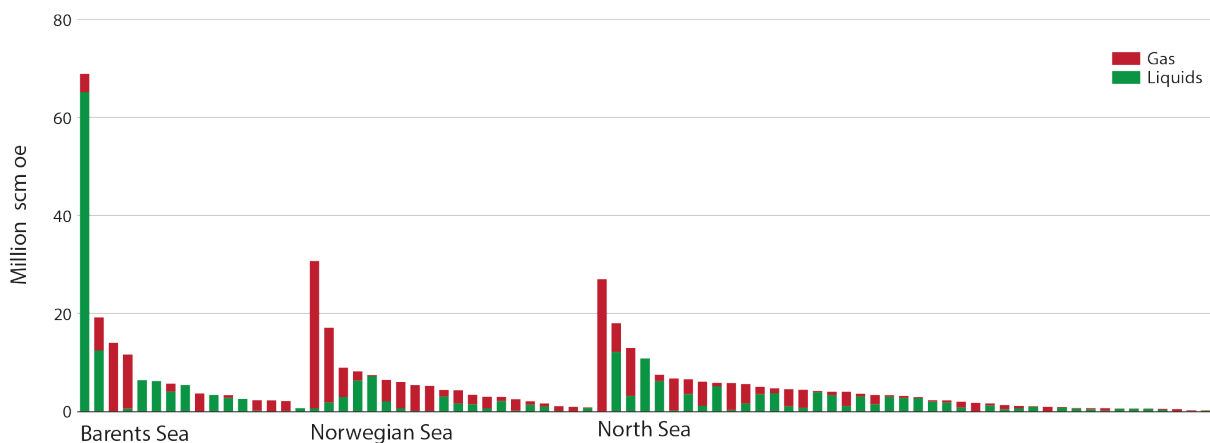


Figure 2-8 Discovery portfolio in the Resource Accounts

Both new and old facilities are important for the development of resources on the Norwegian shelf. A number of newer fields are tied into the existing infrastructure. Figure 2-9 shows that many more developments are planned to be tied into existing infrastructure. New infrastructure is important for the development of resources in the area where it is established. This will allow for phase-in of discoveries that have yet to be made, in addition to older discoveries that are not currently profitable for development.

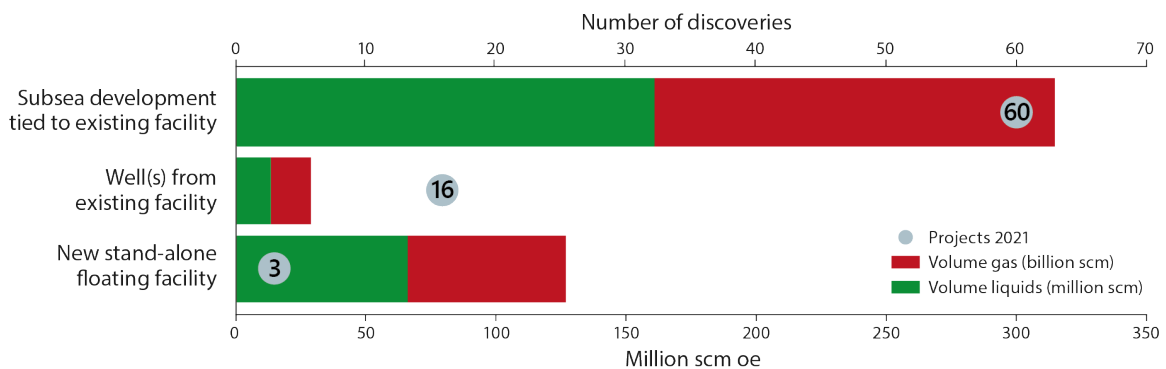


Figure 2-9 Likely development solutions for the 79 discoveries in this year's Resource Accounts, as well as overall resources per development solution

A development with tie-in to existing fields or other major development projects is planned for 76 of the 79 discoveries in the figure. Several of the current discoveries are highly likely to have joint solutions or to be incorporated into fields before a development decision is made.

The most common development solution is subsea developments. This is the most likely concept for 60 of the discoveries. Another possible solution for smaller discoveries located close enough to infrastructure is to use vacant well slots on existing fields. Such a solution has been presumed for 16 discoveries.

To invest in independent production facilities, the resource volumes must be relatively substantial, frequently as a coordinated development of several minor discoveries, or if the discovery itself is sufficiently large. Such developments are used in areas that lack access to sufficient capacity, or which are far from existing infrastructure.

### 2.2.3 Remaining discovered resources

Figure 2-10 shows that remaining discovered resources have been reduced by approximately 300 million Sm<sup>3</sup> oe from 2021 to 2022. 2022 was characterised by high production, resources maturing into reserves and a reduction in contingent resources in fields and discoveries. The increase in gross reserves due to the investment decisions amounted to 262 million Sm<sup>3</sup> oe.

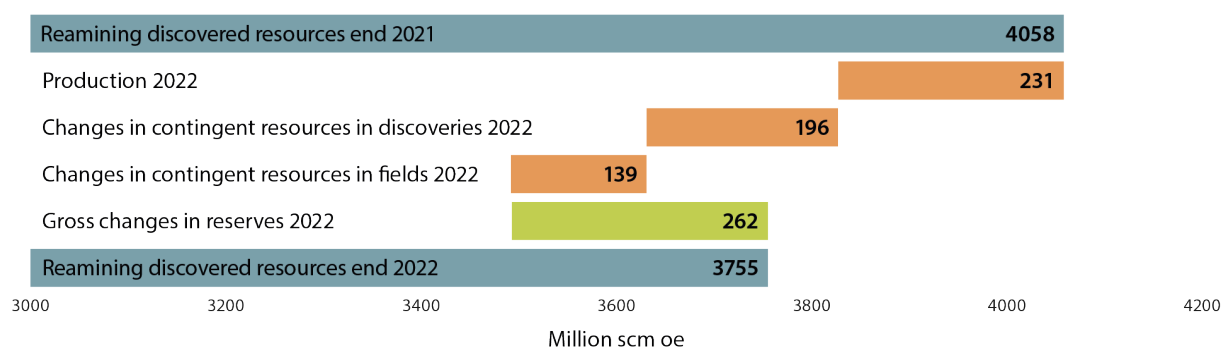


Figure 2-10 Overview of the change in discovered resources from 2021 to 2022

### 3 Undiscovered resources

Undiscovered resources are volumes of petroleum that we project could be recovered from deposits not yet proven through drilling. The estimates of undiscovered resources in areas opened for petroleum activities are updated every two years with an assessment of recent years' exploration results, new mapping and new documentation.

The projections were last updated in autumn 2021. The last year has only seen minor adjustments to the estimates, mainly as a result of exploration activity. Prospects that are drilled and do not become discoveries are removed, and prospects with discoveries are included in the discovered resources.

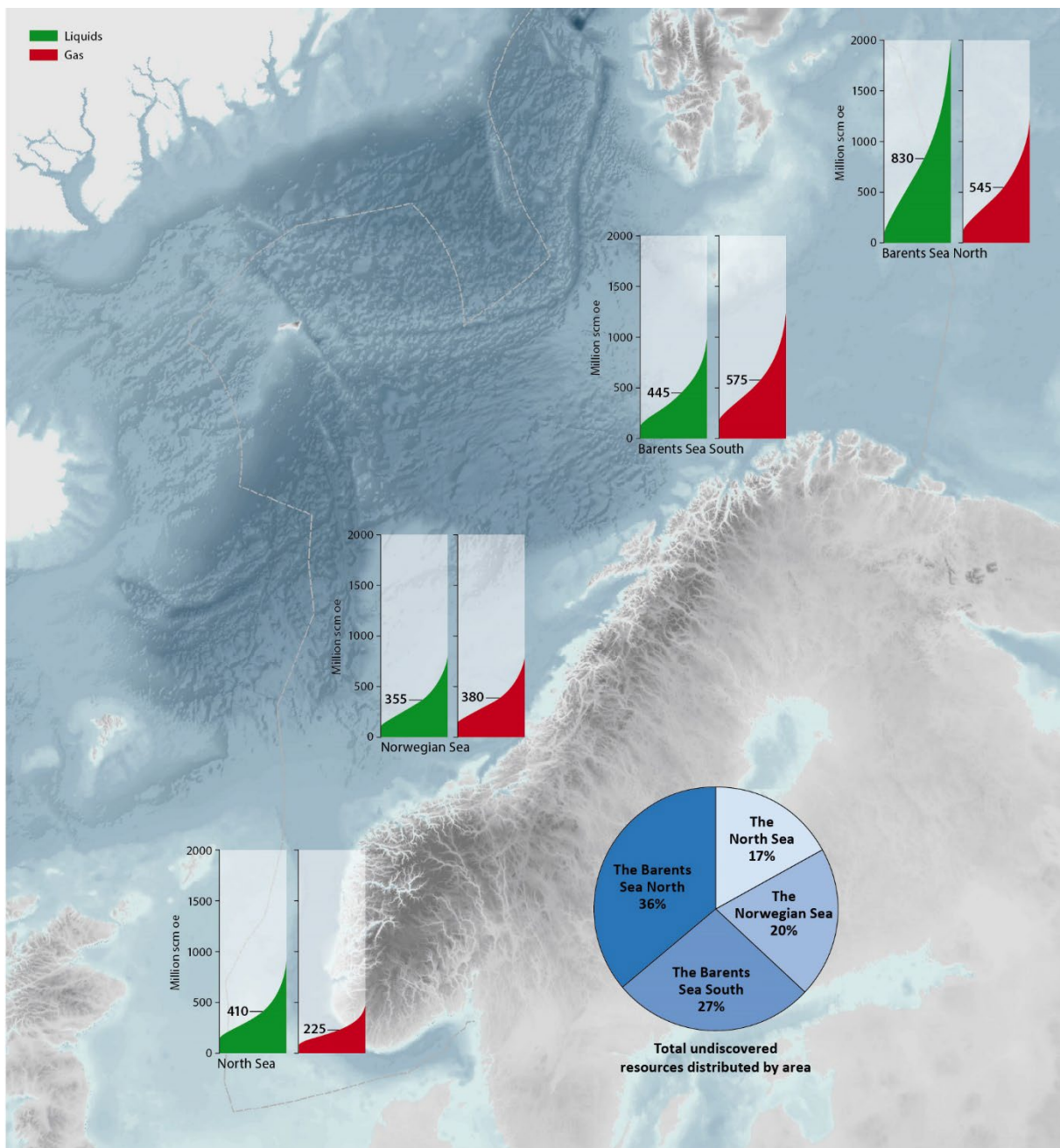


Figure 3-1 Distribution of undiscovered liquids and gas in the various sea areas with range of uncertainty



The pie chart in Figure 3-1 shows the percentage distribution between overall undiscovered resources in each sea area. More than 60 per cent of the undiscovered resources are located in the Barents Sea. In the Barents Sea North, we are expecting double the undiscovered liquids resources as in the other areas. This is where the uncertainty is greatest, which is reflected in the considerable range between the high and low estimates. The potential for gas on the Norwegian shelf is also greatest in the Barents Sea. It is distributed fairly equally between south and north.

Nevertheless, there are still considerable undiscovered resources in the North Sea and the Norwegian Sea, and with all existing infrastructure, there is a significant potential for value creation in these sea areas, even for discoveries of minor deposits. In the North Sea, we expect liquids to account for the largest share, while there is an equal distribution between undiscovered liquids and gas in the Norwegian Sea. The range of uncertainty shown in Figure 3 is from P95 to P05 in the estimated probability distribution for the resource outcome. The figures are listed in Table 3-1.

Table 3-1 Undiscovered resources by sea area with range of uncertainty

Ocean areas	Liquids million scm			Gas billion scm			Sum oil equivalents million scm		
	P95	Mean	P05	P95	Mean	P05	P95	Mean	P05
North Sea	155	410	875	90	225	450	315	635	1 155
Norwegian Sea	105	355	765	150	380	775	265	735	1 515
- Barents Sea South	135	445	985	190	575	1 220	330	1 020	2 190
- Barents Sea North	85	830	1 960	115	545	1 240	245	1 375	3 145
Barents Sea	435	1 275	2 530	470	1 120	2 040	965	2 395	4 435
<b>Total, NCS</b>	<b>1 050</b>	<b>2 040</b>	<b>3 365</b>	<b>973</b>	<b>1 725</b>	<b>2 755</b>	<b>2 125</b>	<b>3 765</b>	<b>5 965</b>

### 3.1 Undiscovered resources in opened and unopened areas

The NPD expects undiscovered resources to make up 24 per cent of the overall resources on the Norwegian shelf. 56 per cent of this is in opened areas, 26 per cent of which is in the Barents Sea, 13 per cent in the Norwegian Sea and 17 per cent in the North Sea, as shown in Figure 3.

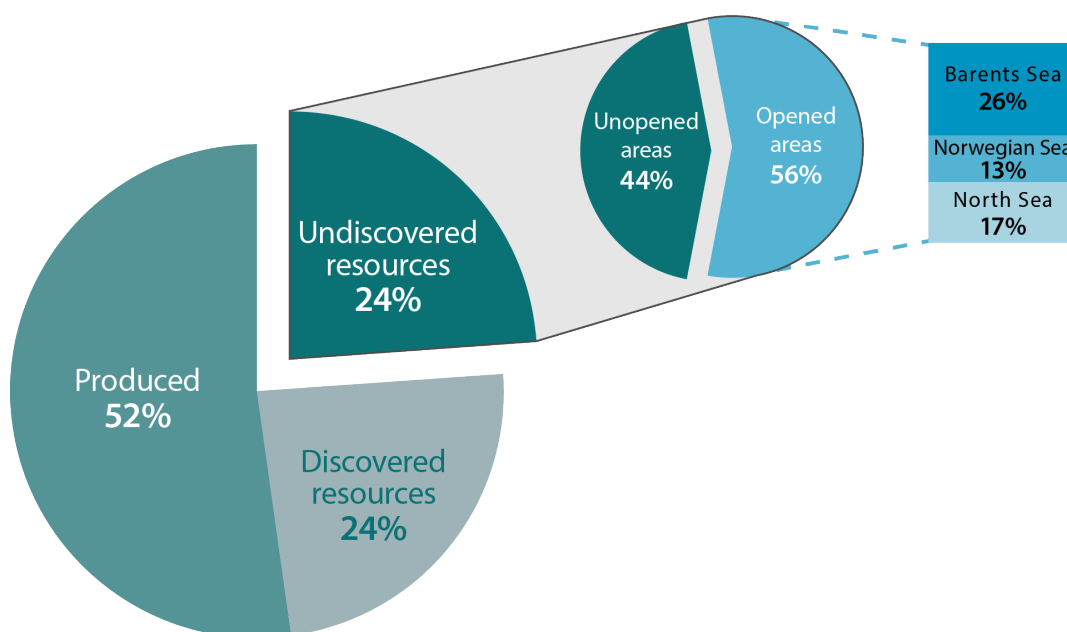


Figure 3-2 Distribution of undiscovered resources across opened and unopened areas



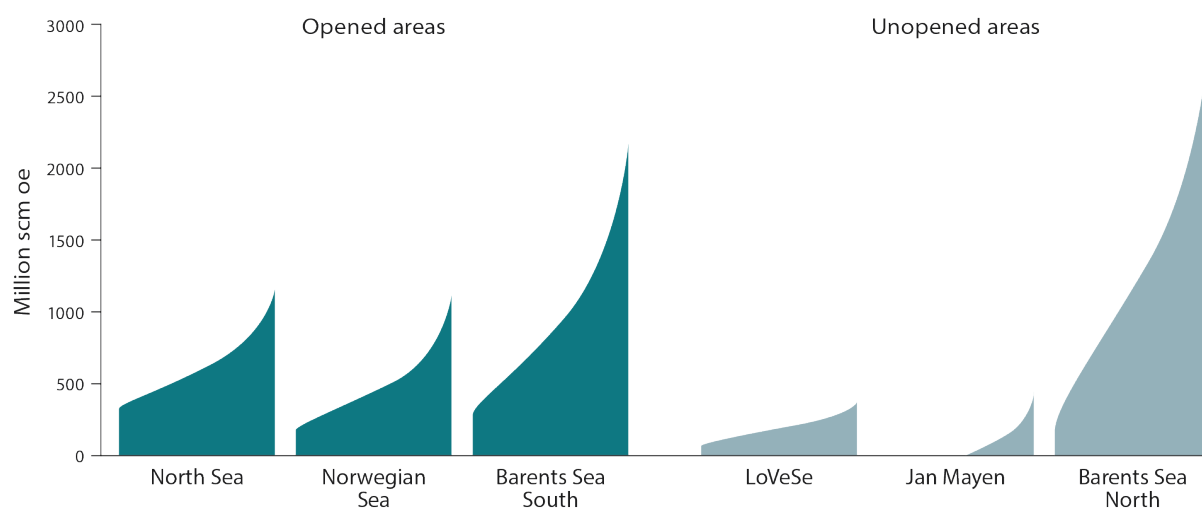


Figure 3-3 Undiscovered resources in opened and unopened areas with range of uncertainty. LoVeSe is an abbreviation for the areas of Lofoten, Vesterålen and Senja.

Despite the somewhat greater resource potential in the Opened areas, the upside is greatest in the unopened part of the Barents Sea (Barents Sea North). This is also the area with the greatest uncertainty, as shown in Figure 3. The resources in LoVeSe are distributed between the Norwegian Sea and the Barents Sea South.

Table 3-2 Undiscovered resources by sea area, in opened and unopened areas.

Ocean areas	All areas			Opened areas			Unopened areas		
	Liquids million scm	Gas billion Sm <sup>3</sup>	Sum oe million scm	Liquids million scm	Gas billion scm	Sum oe million scm	Liquids million scm	Gas billion scm	Sum oe million scm
North Sea	410	225	635	410	225	635			
Norwegian Sea	355	380	735	185	310	495	170	70	240
- Barents Sea South	445	575	1 020	425	555	980	20	20	40
- Barents Sea North	830	545	1 375				830	545	1 375
Barents Sea	1 275	1 120	2 395	425	555	980	850	565	1 415
<b>Total, NCS</b>	<b>2 040</b>	<b>1 725</b>	<b>3 765</b>	<b>1 020</b>	<b>1 090</b>	<b>2 110</b>	<b>1 020</b>	<b>635</b>	<b>1 655</b>

## 3.2 Undiscovered resources in Norwegian sea areas

### North Sea

The estimate for undiscovered resources in the North Sea is 635 million Sm<sup>3</sup> of recoverable oe. This is distributed between 410 million Sm<sup>3</sup> oil and condensate (liquids) and 225 billion Sm<sup>3</sup> gas.

Even in a mature area such as the North Sea, there is still significant uncertainty in the estimates for undiscovered resources, as illustrated in Figure 3.1. The figure shows a probability distribution where the low end is the P95 estimate (95 per cent likelihood that undiscovered resources exceed this value) and the high end is the P05 estimate (5 per cent likelihood that undiscovered resources exceed this value). These figures indicate the expected value in the distribution. This is normally somewhat higher than the P50 value.

Even if one cannot rule out that larger discoveries could be made in the North Sea, we expect that the majority of discoveries will be relatively small. The average discovery size in the North Sea over the last five years is 3.1 million Sm<sup>3</sup> recoverable oe.

### **Norwegian Sea**

The estimate for undiscovered resources in the Norwegian Sea is 735 million Sm<sup>3</sup> recoverable oe. This is distributed between 355 million Sm<sup>3</sup> oil and condensate and 380 billion Sm<sup>3</sup> gas. The average discovery size in the Norwegian Sea has increased over the last five years and is now 5.5 million Sm<sup>3</sup> recoverable oe.

The resource estimates for the Norwegian Sea also include the resource volumes in the unopened areas off Lofoten and Vesterålen, as well as in the sea area around Jan Mayen. These constitute about 33 per cent of the overall estimate.

### **Barents Sea**

The estimate for undiscovered resources in the Barents Sea is 2,395 million Sm<sup>3</sup> recoverable oe and is distributed between 1,275 million Sm<sup>3</sup> oil and condensate and 1,120 billion Sm<sup>3</sup> gas.

Exploration in the Barents Sea over the last five years has yielded mixed results. Exploration near infrastructure has been fruitful, while wells in new areas have been less successful. The average size of discoveries during this period has been 5.6 million Sm<sup>3</sup> oe.

In the Barents Sea, 59 per cent of the resources are located in areas that have not been opened for petroleum activities, primarily in the Barents Sea North. This is the area with the greatest likelihood of making major new discoveries on the Norwegian shelf. There are considerable uncertainties associated with the projections in these areas. The NPD has been engaged in a geological mapping of the Barents Sea North based on new data collected since the previous mapping in 2016. Updated resource estimates for this area are not yet available and will be included in the Resource Accounts for 2023.

## 4 Production

A total of 8,250 million Sm<sup>3</sup> oe has been sold from the Norwegian shelf. Annual values for oil and gas are shown in Figure 4-1. Measured in oe, more gas than oil has been sold over the last ten years. During the 1985–2010 period, the production of oil was significantly higher than that of gas.

At year-end, 93 fields were classified as "in production" on the Norwegian shelf. Nova was the one field that came on stream in 2022. This was in addition to the further development of Hod and Njord coming on stream, and the start-up of Johan Sverdrup phase 2. Two fields shut down in 2022, Knarr and Veslefrikk.

Oil production is presumed to reach a new peak around 2025 of approx. 2 million barrels per day. This is more than 60 per cent of the level in the year 2000.

Gas sales have been at a relatively high level over the last ten years and are expected to remain at this level through 2027 and beyond.

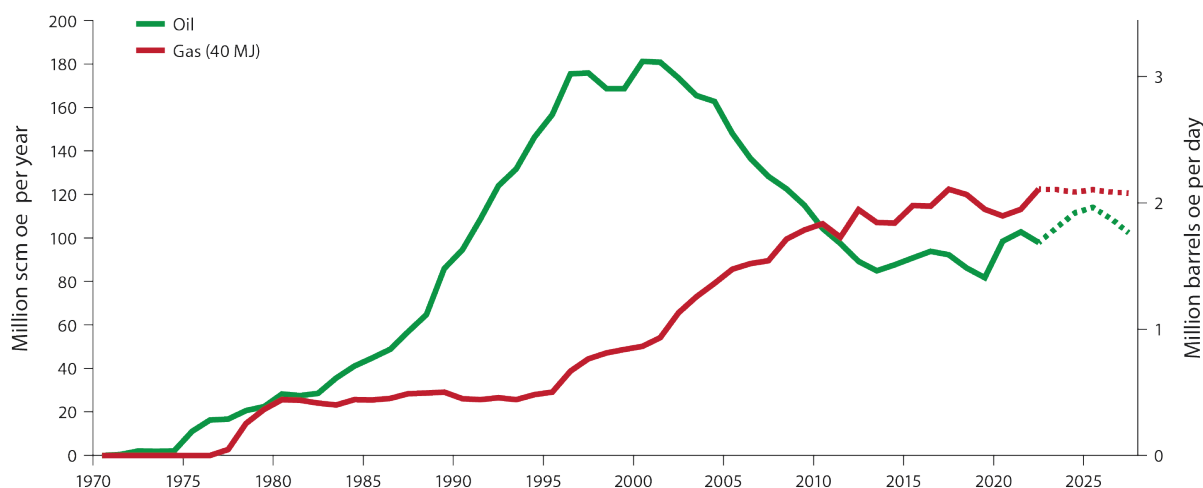


Figure 4-1 Historical sales of oil and gas with forecast (dotted lines) leading up to 2026

Without new fields or major investments in existing fields, production from the Norwegian shelf will decline. As a result of high development activity in recent years, we expect production to increase over the shorter term, and these new fields will offset lower production from ageing fields.

The production level is uncertain over the longer term. This will depend, among other things, on which measures are implemented on the fields, which discoveries are approved for development, and when they come on stream. New discoveries, their size and how and when they are developed, will also affect the production level over the longer term. Historical total production and a forecast leading up to 2031, distributed by maturity of resources, is shown in Figure 4-2.

Resource Accounts as per 31 December 2022

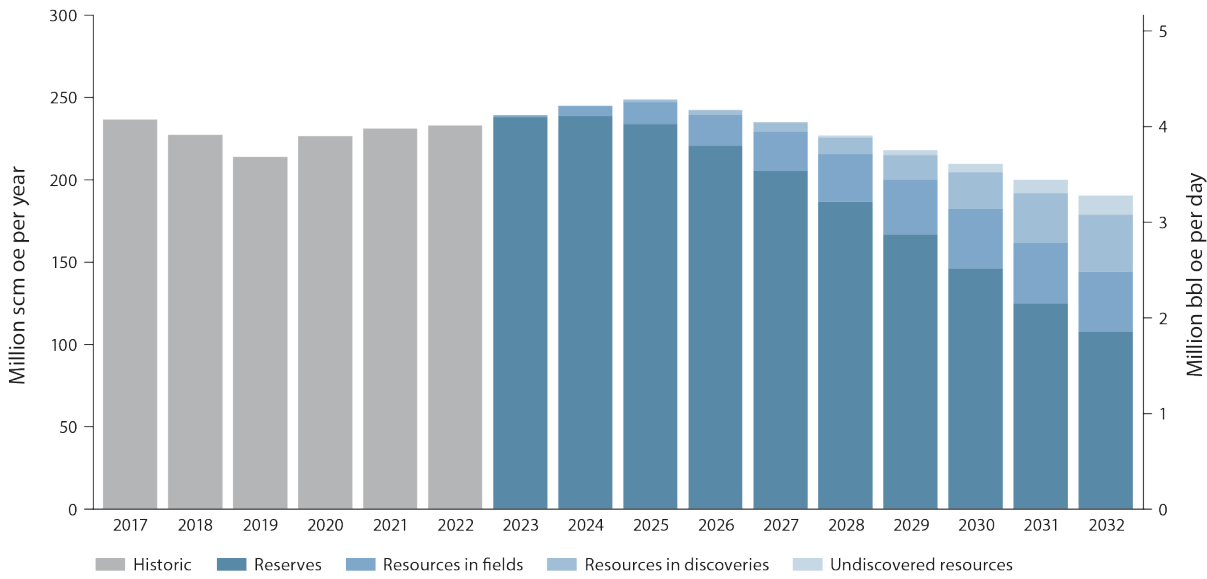


Figure 4-2 Historical total production and forecast distributed by maturity of resources

## 5 Appendices

Conversion factors and designations:

<https://www.npd.no/en/about-us/use-of-content/conversion-table/>

The NPD's resource classification and definitions:

<https://www.npd.no/globalassets/1-npd/regelverk/forskrifter/en/classification-of-petroleum-resources.pdf>

Resource categories:

- ✓ Resources is a general term for all oil and gas that can be recovered
- ✓ Resources are classified according to maturity, which measures how far along they are in the planning phase leading to production
- ✓ The primary classifications are reserves, contingent resources and undiscovered resources
- ✓ Contingent resources are resources in projects awaiting a development decision
- ✓ Reserves and contingent resources are total discovered recoverable resources
- ✓ Reserves are recoverable petroleum volumes not yet produced, but which have been approved for production

Plays and method for calculating undiscovered petroleum resources:

<https://www.npd.no/en/facts/geology/plays/>